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### **REMARKS**

Claims 1 through 18 and new Claims 19 through 21 are pending in the application.

Claim 1 has been amended to clarify that the films of the invention are advantageously biaxially oriented. Support for this amendment can be found in the Application-as-filed, for example on Page 13, line 22.

Claim 1 has further been amended to reflect that the base layer (B) advantageously includes polyester. Support for this amendment can be found in the Application-as-filed, for example on Page 13, lines 5 through 10.

Claim 1 has also been amended to reflect that films in accordance with the invention advantageously exhibit an oxygen transmission smaller than  $30 \text{ cm}^3 \cdot \text{m}^{-2} \cdot \text{d}^{-1} \cdot \text{bar}^{-1}$  and the base layer (B) exhibits a gloss of greater than 100. Support for this amendment can be found in the Application-as-filed, for example on Page 4, lines 26 through 27 and Page 15, line 5.

Claims 4, 13 and 14 have been canceled, as their subject matter has been incorporated into Claim 1.

Claims 5, 6 and 7 have been amended to conform with Claim 1 as-amended.

Claims 9 and 10 have been canceled, without prejudice or disclaimer to the filing of continuing applications thereon.

Claim 18 has been amended to address a typographical error.

Claims 19 through 21 have been added to complete the record for examination and highlight advantageous embodiments of the invention.

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Claim 19 is directed to advantageous embodiments of the invention in which the melt viscosity of the poly(m-xylenedipamide) is within 30% of the melt viscosity of the polyester. Support for Claim 19 can be found in the Application-as-filed, for example on Page 8, lines 6 through 9.

Claim 20 is directed to advantageous embodiments of the invention incorporating from 10 to 60% recycle. Support for Claim 20 can be found in the Application-as-filed, for example on Page 15, lines 19 through 24.

Claim 21 is directed to advantageous embodiments of the invention in which the only catalysts associated with the film consist of polymerization catalyst(s). Support for Claim 21 can be found in the Application-as-filed, for example on Page 7, lines 3 through 7.

Reexamination and reconsideration of this application, withdrawal of all rejections, and formal notification of the allowability of the pending claims are earnestly solicited in light of the remarks which follow.

*Submission of Terminal Disclaimer*

Claims 1 through 18 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting in light of co-pending Application No. 10/760,986. Solely to advance prosecution of the case and without addressing the merits of the rejection, Applicants respectfully submit herewith a terminal disclaimer, as suggested by the Examiner. More particularly, Applicants submit herewith a terminal disclaimer to be charged to Deposit Account 50-2193 that disclaims the terminal part of any patent granted on the above-identified application extending beyond the expiration date of the full statutory term which may ultimately result from the cited co-pending application, i.e. Application No. 10/760,986.

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Accordingly, Applicants respectfully submit that the foregoing rejection has been obviated upon entry of the terminal disclaimer.

**Section 112 Rejection**

Claim 1 stands rejected due to the lack of a positive recitation as to which layer(s) contains polyester. Claim 1 has been amended to reflect that the base layer advantageously includes polyester. As noted above, support for this amendment can be found in the Application-as-filed. Applicants accordingly respectfully request withdrawal of this rejection.

Claims 9 and 10 stand rejected over the type of molecular weight. Claims 9 and 10 have been canceled, solely to advance prosecution of the case and without addressing the merits of this rejection. Applicants accordingly respectfully request withdrawal of this rejection.

Claim 18 stands rejected over the phrase "claimed claim." Claim 18 has been amended to address this typographical error. Applicants accordingly respectfully request withdrawal of this rejection.

**The Claimed Invention is Patentable  
in Light of the Remaining Art of Record**

Claims 1 through 18 stand rejected under double patenting over the claims United States Patent No. 6,709,735 to Posey, et al. (US 735) in view of United States Patent No. 5,021,515 to Cochran et al. (US 515) and Ullmann's Encyclopedia Of Industrial Chemistry (Ullmann).

It may be useful to briefly consider the invention before addressing the merits of the rejection.

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There is a significant demand for biaxially oriented barrier films, particularly in packaging applications. Conventional barrier films are typically coated or laminated with barrier materials in an off-line process. The incorporation of barrier polymers into biaxially oriented films has been heretofore limited, due to the incompatibility of barrier polymers with conventional film forming polymers. In particular, such incompatibility is known to give rise to rough film surfaces during biaxial stretching. The rough film surfaces impart a low gloss and matt appearance to the film, considered undesirable in many packaging applications. (The Examiner's attention is kindly directed to the Application-as-filed on Page 2, lines 1 through 16).

Altogether unexpectedly, Applicants have determined that a particular barrier polymer can be incorporated into biaxially-oriented barrier-coated films so as to provide a highly advantageous and heretofore unknown balance of barrier and optical properties.

Accordingly, the claims are directed to biaxially oriented polyester films that include a base layer (B) comprised of poly(m-xylenedipamide) and polyester. At least one side of the base layer has been coated with a barrier layer (D). The barrier layer (D) is comprised of a film-forming substance and a copolymer of maleic acid and acrylic acid. The claimed films exhibit an oxygen transmission (OTR) smaller than  $30 \text{ cm}^3 \cdot \text{m}^{-2} \cdot \text{d}^{-1} \cdot \text{bar}^{-1}$  and the base layer (B) of the resulting film exhibits a gloss of greater than 100.

The claims of US 735 do not teach or suggest the claimed invention. US 735 is merely directed to an improved barrier coating. The claims of US 735 are directed to polyester films. (Claims 1 and 18). Even considered in its entirety, US 735 merely generically notes that its barrier coatings are applicable to "any polymeric film." (Col. 5, lines 57 – 60). US 735 further broadly notes that its films are "recyclable." (Col. 5, lines 50 – 53).

US 735 does not teach or suggest the recited poly(m-xylenedipamide), as noted by the Examiner. US 735 thus does not teach or suggest the recited biaxially-oriented, barrier-coated film having a polyester base layer that includes poly(m-xylenedipamide), in which the film

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further provides an oxygen transmission smaller than  $30 \text{ cm}^3 \cdot \text{m}^{-2} \cdot \text{d}^{-1} \cdot \text{bar}^{-1}$  and a base layer (B) gloss of greater than 100.

And US 735 most certainly does not teach or suggest such film having a polyester base layer that includes poly(m-xylenedipamide) having a melt viscosity that is within 30% of the polyester melt viscosity, as recited in Claim 19.

Nor does US 735 teach or suggest such film further including from about 10 to 60% of recycle, as recited in Claim 20.

Accordingly, Applicants respectfully submit that the claimed invention is patentable in light of US 735, considered either alone or in combination with the art of record.

US 515 does not cure the deficiencies within US 735.

US 515 is primarily directed to bottle resin compositions that incorporate an oxygen scavenger. (Col. 1, lines 35 – 57). The oxygen scavenger is a combination of an oxidation catalyst and an oxidisable organic component. (Col. 4, lines 26 – 32). Exemplary oxidation catalysts include cobalt, rhodium and copper. (Col. 8, lines 11 – 14). US 515 provides a laundry list of suitable oxidisable organic components, which may be either polymeric or non-polymeric. (Col. 8, line 28 – Col. 9, line 35). US 515 notes that the resulting polymers may be formed into articles using “injection moulding” and the like. (Col. 11, lines 30 – 34). US 515 is silent as to the surface properties of its articles. US 515 is also silent as to the recyclability of its articles.

US 515 thus does not teach or suggest the recited biaxially-oriented barrier-coated films having a base layer that is comprised of poly(m-xylenedipamide) and polyester. Nor does US 515 teach or suggest such biaxially-oriented, barrier-coated films that further provide an oxygen transmission smaller than  $30 \text{ cm}^3 \cdot \text{m}^{-2} \cdot \text{d}^{-1} \cdot \text{bar}^{-1}$  and a base layer (B) gloss of greater than 100. US

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515 further does not teach or suggest such films including up to 30% poly(m-xylenedipamide), as recited in Claim 2.

Nor does US 515 teach or suggest such biaxially oriented films having a polyester base layer that includes poly(m-xylenedipamide) having a melt viscosity that is within 30% of the melt viscosity of the polyester, as recited in Claim 19.

US 515 also does not teach or suggest such biaxially oriented film further including from about 10 to 60% of recycle, as recited in Claim 20.

And US 515 most certainly does not teach or suggest such biaxially oriented polyester film in which the only catalysts associated with the film consist of polymerization catalyst(s), as recited in Claim 21. In fact, US 515 teaches away from such embodiments by requiring the presence of an oxidation catalyst, such as cobalt, rhodium or copper.

Accordingly, Applicants respectfully submit that the claimed invention is patentable in light of US 515, considered either alone or in combination with the art of record.

Ullmann is merely an encyclopedic reference, generally directed to a myriad of films. The Examiner is correct in that Ullmann does disclose the coating of films. Ullmann does not teach or suggest barrier films, however. Ullmann is further silent as to poly(m-xylenedipamide).

Consequently, Ullmann does not teach or suggest biaxially oriented film having a base layer that includes poly(m-xylenedipamide) and polyester. And Ullmann most certainly does not teach or suggest the recited biaxially-oriented barrier-coated film having a polyester base layer that includes poly(m-xylenedipamide), in which the film further provides an oxygen transmission smaller than  $30 \text{ cm}^3 \cdot \text{m}^{-2} \cdot \text{d}^{-1} \cdot \text{bar}^{-1}$  and a base layer (B) gloss of greater than 100.

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Nor does Ullmann teach or suggest such biaxially-oriented barrier-coated film having a polyester base layer that includes poly(m-xylenedipamide) having a melt viscosity that is within 30% of the melt viscosity of the polyester, as recited in Claim 19.

Ullman also does not teach or suggest such film further including from about 10 to 60% of recycle, as recited in Claim 20.

Accordingly, Applicants respectfully submit that the claimed invention is patentable in light of Ullmann, considered either alone or in combination with the art of record.

There would have been no motivation to have combined US 735, US 515 and Ullmann. Applicants respectfully submit that merely because the references can be combined is not enough, there must still be a suggestion. MPEP 2143.01 (section citing Mills).

US 735 is directed to improved barrier coatings. US 515 is directed to improved barrier bottle resin. US 735 and US 515 thus present alternative means by which to improve the barrier properties of the resulting articles. Accordingly, there would have been no motivation to have looked to the combination of these references. Applicants respectfully submit that the Office Action is indulging in impermissible hindsight by merely picking and choosing elements from the prior art while using the instant specification as the guide for that selection process.

However, even if combined (which Applicants submit should not be done), the claimed invention would not result. US 735 is merely directed to a particular coating composition. US 515 is directed to the incorporation of an oxidation catalyst, such as cobalt, within bottle resin. Ullmann is merely an encyclopedic reference generically describing films.

Consequently, the combination of US 735, US 515 and Ullmann does not teach or suggest the recited biaxially-oriented barrier-coated film having a polyester base layer that includes poly(m-xylenedipamide), in which the film further provides both an oxygen

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transmission smaller than  $30 \text{ cm}^3 \cdot \text{m}^{-2} \cdot \text{d}^{-1} \cdot \text{bar}^{-1}$  and a base layer (B) gloss of greater than 100. The combination further does not teach or suggest such film including up to 30% poly(m-xylenedipamide), as recited in Claim 2.

The combination also fails to teach or suggest such film in which the poly(m-xylenedipamide) has a melt viscosity that is within 30% of the melt viscosity of the polyester, as recited in Claim 19.

Nor does the combination teach or suggest such film further comprising from about 10 to 60% of recycle, as recited in Claim 20.

And the combination most certainly does not teach or suggest film in which the only catalysts associated with the film consist of polymerization catalyst(s), as recited in Claim 21. In fact, US 515 teaches away from such embodiments.

Neither US 735, US 515 or Ullmann addresses the issue solved by the instant application, i.e. the provision of a glossy surface to biaxially-oriented barrier films. Accordingly, they can not suggest a solution to that problem. The instant invention resides in the selection of particular elements from a wide number of possibilities to solve a specific problem, i.e. the matching of multiple polymers within various layers to produce biaxially-oriented barrier films exhibiting both an oxygen transmission (OTR) smaller than  $30 \text{ cm}^3 \cdot \text{m}^{-2} \cdot \text{d}^{-1} \cdot \text{bar}^{-1}$  and a base layer (B) gloss of greater than 100.

Accordingly, Applicants respectfully submit that Claims 1 through 21 are patentable in light of US 735, US 515 and Ullmann, considered either alone or in combination.

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### CONCLUSION

It is respectfully submitted that Applicants have made a significant and important contribution to the art, which is neither disclosed nor suggested in the art. It is believed that all of pending Claims 1 through 21 are now in condition for immediate allowance. It is requested that the Examiner telephone the undersigned if any questions remain to expedite examination of this application.

It is not believed that extensions of time or fees are required, beyond those which may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time and/or fees are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required is hereby authorized to be charged to Deposit Account No. 50-2193.

Respectfully submitted,

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### CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office at facsimile number (703) 872-9306 on March 16, 2005.

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